

REMARKS

The Office Action dated October 5, 2004, has been received and reviewed.

Claims 1-9 and 11-20 are currently pending and under consideration in the above-referenced application, each standing rejected. Claim 10 has been withdrawn from consideration.

Reconsideration of the above-referenced application is respectfully requested.

Supplemental Information Disclosure Statement

Please note that a Supplemental Information Disclosure Statement was filed in the above-referenced application on June 8, 2004, but that the undersigned attorney has not yet received any indication that the references cited in the Supplemental Information Disclosure Statement have been considered in the above-referenced application. It is respectfully requested that the references cited in the Supplemental Information Disclosure Statement of June 8, 2004, be considered and made of record in the above-referenced application and that an initialed copy of the Form PTO/SB/08A that accompanied that Supplemental Information Disclosure Statement be returned to the undersigned attorney as evidence of such consideration.

Provisional Obviousness-Type Double Patenting Rejection

Claims 1-20 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent Application Serial No. 10/035,738.

In the event that both the above-referenced application and the '738 Application are allowed, a terminal disclaimer and the appropriate fee will be filed, in compliance with 37 C.F.R. § 1.321(b) and (c), to obviate the obviousness-type double patenting rejection, thereby expediting prosecution of the above-referenced application and avoiding further expense and time delay. The filing of a terminal disclaimer in the above-referenced application should not be construed as acquiescence of the propriety of the obviousness-type double patenting rejection.

Rejections Under 35 U.S.C. § 102

Claims 1-7 stand rejected under 35 U.S.C. § 102(b) for reciting subject matter which is purportedly anticipated by that described in U.S. Patent 3,612,955 to Butherus et al. (hereinafter “Butherus”).

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single reference which qualifies as prior art under 35 U.S.C. § 102. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Butherus describes a circuit board that includes magnetized traces and a packaged semiconductor device that includes leads that are either magnetized or formed from a material which is attracted to the source of a magnetic field. Col. 2, lines 59-75. The traces and leads are magnetized in such a way that, with rough alignment of the packaged semiconductor device over the circuit board, the magnetized leads will automatically align with their corresponding, complementarily magnetized traces. Col. 4, line 69, to col. 5, line 7.

Once the leads of the semiconductor device package are aligned with corresponding traces or terminals on the circuit board, the leads may be secured and electrically connected to their corresponding traces or terminals by known processes, such as by thermocompression bonding. Col. 2, lines 47-59.

Independent claim 1 is drawn to a method for establishing an electrical contact with at least one semiconductor device. Electrical contact is established in accordance with independent claim 1 by drawing the first member toward the contact.

While Butherus describes that leads of a packaged semiconductor device may be magnetically attracted to corresponding traces or terminals of a circuit board, the description of Butherus is limited to use of such magnetic attraction for the purpose of aligning the leads with their corresponding traces or terminals. Butherus lacks any express or inherent description that the attraction of the leads to magnetic traces or terminals is sufficient to electrically connect the leads to the magnetic traces or terminals. To this end, Butherus describes that thermocompression bonding is necessary to secure the leads to their corresponding magnetic

traces or terminals and, thus, to establish electrical contact between each lead and its corresponding magnetic trace or terminal. Col. 2, lines 47-59.

Thus, Butherus does not anticipate a method that includes drawing a first member toward a contact *to establish electrical contact*, as is required by independent claim 1. It is, therefore, respectfully submitted that, under 35 U.S.C. § 102(b), independent claim 1 recites subject matter which is allowable over the subject matter described in Butherus

Claims 2-7 are each allowable, among other reasons, for depending either directly or indirectly from claim 1, which is allowable.

Claim 4 is further allowable since each of the electrical connectors of Butherus, which are presumed to be the leads of the packaged semiconductor device, comprises only a single element. Thus, Butherus includes no express or inherent description of both “drawing [a] first member” of an electrical connector “toward [a] contact” (*see* independent claim 1) and “positioning a second member of the electrical connector opposite the first member,” as are required by claim 4.

Claim 5 depends directly from claim 4 and is also allowable because Butherus neither expressly nor inherently describes that oppositely positioned first and second members of an electrical connector may be magnetically attracted to one another. Instead, the description of Butherus is limited to magnetically attracting a single-element lead directly to a trace or terminal.

Claim 6, which also depends directly from claim 4, is additionally allowable because Butherus does not expressly or inherently describe securing both first and second members of an electrical connector to a substrate by attracting at least the first member of the electrical connector to a contact carried by the substrate. Rather, Butherus merely describes attracting single-element leads to corresponding magnetic traces or terminals.

For these reasons, it is respectfully requested that the 35 U.S.C. § 102(b) rejections of claims 1-7 be withdrawn and that each of these claims be allowed.

Rejections Under 35 U.S.C. § 103(a)

Claims 8, 9, and 11-20 are rejected under 35 U.S.C. § 103(a) for reciting subject matter which is assertedly unpatentable over that taught in Butherus.

The standard for establishing and maintaining a rejection under 35 U.S.C. § 103(a) is set forth in M.P.E.P. § 706.02(j), which provides:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The Office has taken official notice of two teachings. First, the Office has taken official notice that "it is well known in the art to provide ground and power to electronic components to energize them." Office Action dated October 5, 2004, page 4. Second, the Office has taken official notice that, "during burn-in testing[,] [sic] heat is provide[d] [sic] either cyclically or variously to purposely fail the [burned-in] component." *Id.*

It is respectfully submitted that a *prima facie* case of obviousness under 35 U.S.C. § 103 has not been established against any of claims 8, 9, or 11-20.

First, it is respectfully submitted that Butherus does not teach or suggest each and every claim limitation set forth in any of claims 8, 9, or 11-20, and the subject matter for which official notice has been taken does not remedy the deficiencies of Butherus.

Independent claim 8 recites a method for stress testing a plurality of semiconductor devices that are carried upon a common substrate and that are in communication with common ground and power contacts. The method of independent claim 8 includes establishing electrical contact between a first member of an electrical connector and at least one common contact, with at least one of the first member and the at least one common contact being drawn toward the other.

It is respectfully submitted that Butherus lacks any teaching or suggestion that one of a first member of an electrical connector and a contact may be drawn to the other to establish an electrical connection therebetween. Rather, the teachings of Butherus are limited to generating a

sufficient magnetic field to properly align leads of a packaged semiconductor device with corresponding traces or terminals of a circuit board. *See, e.g.*, Col. 4, line 69, to col. 5, line 7. Butherus teaches that, once the leads have been magnetically aligned with their corresponding traces or terminals, thermocompression bonding is required to secure and electrically connect each lead to its corresponding trace or terminal. Col. 2, lines 47-59.

Moreover, Butherus does not teach or suggest that electrical contact may be established between a first member of an electrical connector and a contact, such as a power contact or a ground contact, which is *common to* a plurality of semiconductor devices. Nor has the Examiner cited any art which teaches or suggests that electrical contact may be established between a first member of an electrical connector and a contact which is common to a plurality of semiconductor devices during stress testing.

Second, it is respectfully submitted that one of ordinary skill in the art would have no reason to expect that modifications of the teachings of Butherus in the manner that the Examiner has asserted would be successful. The mere fact that electrical connections are made during stress testing does not inherently, or necessarily, lead to the asserted conclusion that magnetic attraction of the type taught in Butherus would be adequate for establishing electrical connections that will withstand stress testing conditions. Nor would one of ordinary skill in the art have any reason to expect that the type of magnetic attraction taught in Butherus, *i.e.*, alignment of leads with corresponding traces or contacts, could be successfully used to establish electrical connections that will withstand stress testing conditions.

Because Butherus does not teach or suggest that magnetic forces may be used to establish electrical contact, particularly during stress testing, it appears that the disclosure of the above-referenced application provides the only source of motivation for one of ordinary skill in the art to modify the teachings of Butherus in the asserted manner. Thus, the Office has apparently improperly relied on the hindsight provided by the disclosure of the above-referenced application in establishing the 35 U.S.C. § 103(a) rejection of independent claim 8.

In view of the foregoing, it is respectfully submitted that the Office has not established a *prima facie* case of obviousness against independent claim 8. Accordingly, it is respectfully

submitted that, under 35 U.S.C. § 103(a), independent claim 8 is allowable over both the teachings of Butherus and the teachings for which the Office has taken official notice.

Each of claims 9 and 11-20 is allowable, among other reasons, for depending either directly or indirectly from claim 8, which is allowable.

Claim 11 is further allowable since each of the electrical connectors of Butherus, which are presumed to be the leads of the packaged semiconductor device, comprises only a single element. Thus, Butherus includes no teaching or suggestion of both “drawing the first member” of an electrical connector “toward . . . at least one contact” (*see* independent claim 8) and “positioning a second member of the electrical connector opposite the first member,” as are required by claim 11.

Claim 12 depends directly from claim 11 and is also allowable because Butherus neither teaches nor suggests that oppositely positioned first and second members of an electrical connector may be drawn to one another. Instead, the teachings or suggestions of Butherus are limited to attracting a single-element lead directly to a trace or terminal.

Claim 13, which depends directly from claim 12, is additionally allowable because Butherus includes no teaching or suggest that first and second members of an electrical connector may be magnetically attracted to one another.

Claim 15 is further allowable since Butherus does not teach or suggest *securing* a first member of an electrical connector to a contact. Rather, Butherus merely teaches attracting single-element leads to corresponding magnetic traces or terminals. Securing of the leads to the traces or terminals is then effected by conventional bonding techniques, such as thermocompression. Col. 2, lines 47-59.

In view of the foregoing, withdrawal of the 35 U.S.C. § 103(a) rejections of claims 8, 9, and 11-20 is respectfully requested.

Election of Species Requirement

In the Office Action of July 25, 2003, it was noted that “[i]f independent claim 8 is allowed, [withdrawn] claim 10 will be rejoined. In view of the allowability of independent claim 8, it is respectfully requested that claim 10 be considered and allowed. *See also* M.P.E.P. § 806.04(d).

CONCLUSION

It is respectfully submitted that each of claims 1-20 is allowable. An early notice of the allowability of each of these claims is respectfully solicited, as is an indication that the above-referenced application has been passed for issuance. If any issues preventing allowance of the above-referenced application remain which might be resolved by way of a telephone conference, the Office is kindly invited to contact the undersigned attorney.

Respectfully submitted,



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